

**PATENT**

**AMENDMENTS TO THE DRAWINGS**

The attached sheet of drawings includes changes to Figure 4 and replaces the original sheet, which includes Figure 4.

Attachment: Replacement Sheet

## PATENT

REMARKS

## 1.) Amendments

Applicants have amended several paragraphs and Figure 4 of the present patent application to correct inadvertent and grammatical errors.

Also, Applicants have amended claims 1-2, 4-5, 7, 9-13, 15-16, 18-20 and 22-27 to better claim the invention. Support for the amendments can be found, for example, in paragraphs [0026], [0027], [0030] and [0041] of the this patent application. Accordingly, claims 1-28 are pending in the patent application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

## 2.) Claim Rejections – 35 U.S.C. §103

Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,256,349 issued to Suzuki et al. (hereinafter “Suzuki”) in view of U.S. Patent No. 5,301,242 issued to Gonzales et al. (hereinafter “Gonzales”). Before addressing these rejections in detail, it should be noted that the Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. *MPEP 2142*. To establish *prima facie* case of obviousness, certain criteria must be met. One of such criteria requires the prior art reference or references when combined must teach or suggest all the claim limitations. With such requirement in mind, Applicants respectfully traverse these rejections insofar as they apply to the amended claims.

Regarding the amended independent claim 1, it is generally directed to a method for generating multiple descriptions of compressed data from input data, wherein each description is associated with a target application. The method of claim 1 comprises the following limitations:

*generating a quantized bit stream using a reference quantization step, wherein the generation comprises transforming the input data into coefficients and quantizing the coefficients using the reference quantization step (hereinafter “first limitation”); and*

*re-quantizing the quantized bit stream using a first quantization step to generate a first description of compressed data, wherein the first quantization step is determined based on a first*

## PATENT

*required scaling of the reference quantization step, said first required scaling being determined based on a first target application (hereinafter "second limitation").*

By re-quantizing the quantized bit stream as specified in claim 1, a particular description of compressed data can be generated for a desirable target application and thus one of the benefits provided by the present invention is the flexibility of catering to various target applications having different resolutions. More specifically, such re-quantization uses a first **quantization step being determined by scaling the reference quantization step based on a particular target application**, for example, a first target application as specified in claim 1. Applicants respectfully submit that Suzuki, Gonzales or their combination fails to teach or suggest all the limitations of the amended independent claim 1.

With respect to Suzuki, the Examiner relies on Figure 5 to teach or suggest the first and second limitations of claim 1. More specifically, the Examiner indicates that [1] the block quantizer 7 of Suzuki is responsible for generating a quantized bit stream and [2] the quantizer 112 of Suzuki is responsible for re-quantizing the quantized bit stream. *Office action, page 2.* Applicants disagree.

Turning first to the block quantizer 7 of Suzuki, it quantizes the input data by dividing such input data by a quantization width Q. *Column 17, lines 30-34*. In contrast, the first limitation of claim 1 specifies that the quantized bit stream gets generated by transforming the input data into coefficients and quantizing the coefficients. Accordingly, Suzuki fails to teach or suggest the first limitation of claim 1 because its block quantizer 7 does not transform the input data into coefficients and quantize the coefficients.

Turning to the quantizer 112 of Suzuki, it receives DCT coefficients from a discrete cosine transform (DCT) circuit 111 and thereby quantizes such DCT coefficients. *Column 17, lines 35-42 and Figure 5*. Unlike Suzuki, the second limitation of claim 1 is directed to re-quantize the quantized bit stream. Assuming *arguendo* that quantizing and re-quantizing are the same, Suzuki's quantization of the DCT coefficients is **different** from the present inventive re-quantization of the quantized bit stream. More specifically, the claimed quantized bit stream is generated by transforming the input data into coefficients and thereby quantizing such coefficients. Thus, the claimed quantized bit stream comprises quantized coefficients that later

## PATENT

get re-quantized. In contrast, Suzuki's DCT coefficients are not quantized before being quantized by the quantizer 112. Accordingly, Suzuki fails to teach or suggest the second limitation of claim 1 because its quantizer 112 does **not** re-quantize the quantized bit stream.

Furthermore, the Examiner admits that Suzuki does **not** specifically teach using "a second quantization step [that] is a scaling of a first/reference quantization step." *Office Action, page 3*. However, the Examiner thereby relies on Gonzales for disclosing a second quantization step that is determined based on a scaling of a first quantization step. Such reliance is misplaced.

With respect to Gonzales, it comprises an adaptive quantization module 106 configured to perform a first quantization step followed by a second quantization step. *Column 2, lines 57-59 and Figure 1*. Although the second quantization step does use a scaling factor  $q_p$ , such factor is determined based on [1] the complexity of the picture per macroblock basis and [2] the "fullness" of the buffer 118. *See, e.g., Column 2, lines 41-44 and Column 60 - 66*. For example, when the picture is complex,  $q_p$  is generally high and using such high  $q_p$  to quantize yields a lower number of bits to-be-stored by the buffer 118. When the picture is not complex,  $q_p$  is generally low and using such low  $q_p$  to quantize yields a higher number of bits to-be-stored by the buffer 118. *See, e.g., Column 3, lines 8-18*. In addition to the picture complexity, the size of a buffer can have an effect on how the factor  $q_p$  gets determined. *See, e.g., Column 4, lines 57-59*.

Assuming *arguendo* the scaling factor  $q_p$  of Gonzales is comparable to the "required scaling" as specified in claim 1, the claimed required scaling is determined based on a particular target application and does **not** get determined based on [1] the complexity of the picture per macroblock basis and [2] the "fullness" of the buffer as taught by Gonzales. Thus, Gonzales fails to teach or suggest the second limitation of claim 1.

Accordingly, claim 1 is believed to be non-obvious and patentably distinguishable over Suzuki in view of Gonzales.

Regarding claims 2-3, they depend from independent claim 1, which is believed to be patentable as discussed above, and thus claims 2-3 should also be non-obvious and patentably distinguishable over Suzuki in view of Gonzales. *MPEP 2143.03*.

## PATENT

Regarding the amended independent claim 4, it comprises limitations that are similar to those of independent claim 1, which is believed to patentable as discussed above. Thus, independent claim 4 should also be patentable.

Regarding claims 5-6, they depend from independent claim 4, which is believed to be patentable, and thus claims 5-6 should also be non-obvious and patentably distinguishable over Suzuki in view of Gonzales. *MPEP 2143.03*.

Regarding independent claim 7, it comprises limitations that are similar to those of independent claim 1, which is believed to patentable as discussed above. Thus, independent claim 7 should also be patentable.

Regarding claim 8, it depends from independent claim 7, which is believed to be patentable, and thus claim 8 should also be non-obvious and patentably distinguishable over Suzuki in view of Gonzales. *MPEP 2143.03*.

Regarding the amended independent claim 9, it comprises limitations that are similar to those of independent claim 1, which is believed to patentable as discussed above. Thus, independent claim 9 should also be patentable.

Regarding claim 10, it depends from independent claim 9, which is believed to be patentable, and thus claim 10 should also be non-obvious and patentably distinguishable over Suzuki in view of Gonzales. *MPEP 2143.03*.

Regarding the amended independent claim 11, it comprises limitations that are similar to those of independent claim 1, which is believed to patentable as discussed above. Thus, independent claim 11 should also be patentable.

Regarding claim 12, it depends from independent claim 11, which is believed to be patentable, and thus claim 12 should also be non-obvious and patentably distinguishable over Suzuki in view of Gonzales. *MPEP 2143.03*.

## PATENT

Regarding the amended independent claim 13, it comprises limitations that are similar to those of independent claim 1, which is believed to be patentable as discussed above. Thus, independent claim 13 should also be patentable.

Regarding claim 14, it depends from independent claim 13, which is believed to be patentable, and thus claim 14 should also be non-obvious and patentably distinguishable over Suzuki in view of Gonzales. *MPEP 2143.03*.

Claims 15-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of Gonzales and further in view of U.S. Publication No. 2003/0228063 issued to Nakayama et al. (hereinafter "Nakayama"). Again, before addressing these rejections in detail, it should be noted that the Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. *MPEP 2142*. To do so, certain criteria must be met. One of such criteria requires the prior art reference or references when combined must teach or suggest all the claim limitations. With such requirement in mind, Applicants respectfully traverse these rejections **insofar as they apply to the amended claims**.

On page 2 of the Office action, the Examiner admits that Suzuki, Gonzales or their combination fails to teach or suggest "the step of coding and decoding the input data prior to re-quantization" and thereby relies on Nakayama for teaching such step of coding and decoding the data prior to re-quantization. Assuming *arguendo* that the Examiner's reliance on Nakayama for such teaching is correct, the cited prior art references, alone or in any of their combinations thereof, still fail to teach or suggest all the limitations of claim 15 and, especially, the following claim limitation:

*re-quantizing the decoded quantized bit stream using a first quantization step to generate a first description of compressed data associated with a first target application, wherein the first quantization step is determined based on a first required scaling of the reference quantization step, said first required scaling being determined based on the first target application.*

More specifically, the above-listed "re-quantizing" limitation of claim 15 is similar to the second limitation of claim 1, which Gonzales fails to teach or suggest as discussed above. Applicants

## PATENT

hereby assume Nakayama also does not teach or suggest such "re-quantizing" limitation of claim 15 based on the Examiner's reliance on Nakayama for solely teaching the step of coding and decoding the input data prior to re-quantization. Thus, Suzuki, Gonzales, Nakayama or any of their combinations thereof fails to teach or suggest all the limitations of claim 15.

Accordingly, independent claim 15 is believed to be non-obvious and patentably distinguishable over Suzuki in view Gonzales and further in view of Nakayama

Regarding claims 16-17, they depend from independent claim 15, which is believed to be patentable, and thus claims 16-17 should also be non-obvious and patentably distinguishable over Suzuki in view Gonzales and further in view of Nakayama. *MPEP 2143.03.*

Regarding the amended independent claim 18, it comprises limitations that are similar to those of independent claim 15, which is believed to be patentable as discussed above. Thus, independent claim 18 should also be patentable.

Regarding claim 19, it depends from independent claim 18, which is believed to be patentable, and thus claim 19 should also be non-obvious and patentably distinguishable over Suzuki in view Gonzales and further in view of Nakayama. *MPEP 2143.03.*

Regarding the amended independent claim 20, it comprises limitations that are similar to those of independent claim 15, which is believed to be patentable as discussed above. Thus, independent claim 20 should also be patentable.

Regarding claim 21, it depends from independent claim 20, which is believed to be patentable, and thus claim 21 should also be non-obvious and patentably distinguishable over Suzuki in view Gonzales and further in view of Nakayama. *MPEP 2143.03.*

Regarding the amended independent claim 22, it comprises limitations that are similar to those of independent claim 15, which is believed to be patentable as discussed above. Thus, independent claim 22 should also be patentable.

Regarding claims 23-24, they depend from independent claim 22, which is believed to be patentable, and thus claims 23-24 should also be non-obvious and patentably distinguishable over Suzuki in view Gonzales and further in view of Nakayama. *MPEP 2143.03.*

**PATENT**

Regarding the amended independent claim 25, it comprises limitations that are similar to those of independent claim 15, which is believed to patentable as discussed above. Thus, independent claim 25 should also be patentable.

Regarding claim 26, it depends from independent claim 25, which is believed to be patentable, and thus claim 26 should also be non-obvious and patentably distinguishable over Suzuki in view Gonzales and further in view of Nakayama. *MPEP 2143.03*.

Regarding the amended independent claim 27, it comprises limitations that are similar to those of independent claim 15, which is believed to patentable as discussed above. Thus, independent claim 27 should also be patentable.

Regarding claim 28, it depends from independent claim 27, which is believed to be patentable, and thus claim 27 should also be non-obvious and patentably distinguishable over Suzuki in view Gonzales and further in view of Nakayama. *MPEP 2143.03*.

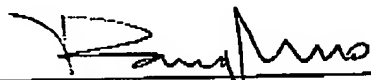


**PATENT****CONCLUSION**

Claims 1-28 are presently standing in this patent application. In view of the foregoing remarks, each and every point raised in the Office Action mailed on June 27, 2005 has been addressed on the basis of the above remarks. Applicants believe all of the claims currently pending in this patent application to be in a condition for allowance. Reconsideration and withdrawal of the rejections are respectfully requested. In view of the foregoing, Applicant submits that all pending claims in the application are patentable. However, should the Examiner believe that direct contact with Applicants' attorney would advance the prosecution of the application, the Examiner is invited to telephone the undersigned at the number given below.

Respectfully submitted,

Dated: December 9, 2005

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